



DEPARTMENT of the INTERIOR

news release

FISH AND WILDLIFE SERVICE

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David Klinger 202/343-5634

FEDERAL AGENCIES STEPPING UP STUDIES OF BIRD STRIKES AT AIRPORTS

Like oil and water, birds and airplanes don't mix.

When they do, the skills of the wildlife biologist and the professional airport manager are often needed to get them apart, and keep them separated.

Each year, more than 1,400 collisions between birds and aircraft occur in the United States. Although the toll in deaths and injuries is fortunately low, an estimated \$20 million in damage is caused to aircraft annually.

The Interior Department's U.S. Fish and Wildlife Service and the Transportation Department's Federal Aviation Administration are working on research projects that may help reduce bird strikes and improve the margin of safety for the traveling public. These studies are part of an existing agreement between the two Federal agencies to step up the identification of bird hazards at airports. They range in scope from a study of bird strike hazards at airports as part of the development of prototype risk maps that could be used nationwide, to surveys of bird-tempting earthworms that emerge on rain-soaked runways at particular airports.

Bird hazards have grown since the early days of flight, as airplanes have become larger and faster and air traffic lanes more congested. Since the 1940's, when records were first kept on the death toll from bird strikes, more than 150 people have been killed in collisions blamed wholly or partly on birds.

Serious air collisions with birds most typically involve small private jets or turboprop airplanes. Fatalities are generally limited to a few. In September 1981, for instance, a collision between seagulls and a U.S. Air Force T-38 at Cleveland's Burke Lakefront Airport claimed the life of the commander of the military's famed Thunderbird Demonstration Team. Another death occurred last spring when a migrating common loon crashed through the windshield of an executive jet near Cincinnati, killing the co-pilot and injuring the pilot. (A 4-pound bird struck by an airplane traveling at 300 miles-per-hour exerts almost 9 tons of force at its point of impact; at 600 miles-per-hour, the force jumps to 36 tons.)

Occasionally the death toll and aircraft damage can reach even more serious proportions. A 1960 collision between a commercial airliner and a flock of starlings claimed the lives of 62 people at Boston's Logan International Airport. In 1975, a plane with 129 passengers at John F. Kennedy International Airport in New York sucked a flock of seagulls into an engine on take-off. A fire broke out that consumed the plane within 5 minutes, although all passengers were evacuated safely.

"As long as man competes with birds for airspace, there will be the danger of collisions. The trick is to avoid having them compete for the same space at the same time and to reduce the attractiveness of airports to birds," says Robert A. Jantzen, director of the Fish and Wildlife Service. "Through the research projects that we are currently conducting, we hope to gain a much greater understanding of the natural forces that draw birds to airports, so that they can be compensated for in the design, siting, and operation of these facilities."

The Service provides technical assistance to nearly 200 airports with bird problems each year. That assistance can range from solutions that temporarily disperse problem flocks of birds through the use of noisy propane cannons and shell-crackers to full biological surveys that recommend altering vegetation or drainage patterns around airports. In this latest series of research projects, however, biologists hope to learn more about the basic biological factors that draw birds to airports.

The Service is also investigating specialized problems faced by various airports that may provide useful information for other facilities throughout the country. Research is being coordinated by the Service's Denver Wildlife Research Center and carried out by animal damage control biologists from New York to Hawaii. The research program, which will be completed this year, includes studies to:

- Prepare a bird hazard risk map for Kennedy Airport that will depict bird habitat, flight patterns, and flock concentrations around the facility. By superimposing aircraft flight path maps over these charts, potential strike zones will be shown. This risk map will be a prototype for strike charts at other airports;
- Band and mark gulls at Jamaica Bay and Flushing, New York, and at Newark, New Jersey, to study their movements throughout greater New York City. Gulls are being trapped at landfills, banded, dye-marked, and released this winter in an attempt to chart their daily routines;
- Estimate the density of earthworms in the soil near runways at airports in Niagara Falls and Syracuse, New York, and at Plattsburgh Air Force Base, also in New York. Worms crawling onto runways after rainstorms draw large numbers of birds. Biologists are tabulating the numbers of worms and birds that are drawn to study plots at various times of the year; their findings will be used in the FAA's request to the Environmental Protection Agency for permission to use special earthworm control chemicals;
- Investigate strikes between aircraft and cattle egrets in Hawaii. Populations of this common bird have increased near General Lyman Field in Hilo and at Lihue Airport in Lihue, prompting this study to control them by reducing their populations and manipulating their habitat; and
- Develop and test methods to discourage waterfowl and other birds from using ponds, sewage lagoons, drainage canals, and rainwater holding pools at airports.